

REMARKS

The abstract has been amended in order to remove the superfluous reference labels therefrom and also to delete certain objectionable subject matter, e.g. "Fig. 1".

The specification has been amended in order to provide the customary headings such as --Background of the Invention--etc. and to otherwise improve its form.

Claims 1, 2, and 4-6 were amended in order to remove the superfluous reference labels. Claims 2, 4 and 5 were further slightly amended to improve the idiom, but without materially altering the scope thereof. Claim 7 was amended in order to make it a little more definite.

Claims 8-18 were added in order to provide applicants with protection commensurate in scope with the invention disclosed.

Claims 1,2,6 and 7 were rejected under 35 USC 102(e) as being anticipated by Reithmeier (USP 6,488,385).

At the outset, it should be noted that the CAFC has repeatedly held that the concept of doing a thing that is new and useful must be considered along with the actual physical structure thereof. That is, an invention is not limited alone to the physical embodiment thereof, and the prior art must not only disclose the

same physical elements, but must also disclose the novel concept underlying the claimed invention.

In the present controversy, the Reithmeier patent discloses the combination of two or more abutting fluorescent lamps and a plurality of light-emitting diodes. But the purpose of the light-emitting diodes in Reithmeier is to add additional light so as to compensate for dark ridges that occur at the joints of the two or more abutting fluorescent lamps. In contrast, the light-emitting diodes of the present invention (claim 1 etc.) are for the purpose of selectively adjusting or setting the color temperature of the light emitted by the overall light source comprising the discharge lamp and the plurality of light-emitting diodes. This novel concept is not taught by the Reithmeier patent and so it cannot and does not anticipate the invention as claimed in claim 1 of this application, despite some overall similarity in the physical structure thereof. One skilled in the art, faced with the problem of a display device illumination system with a fixed color temperature determined by its electric discharge lamp, would not be taught by Reithmeier that such problem could be cured by adding a plurality of light-emitting diodes which can be chosen so as to selectively set the color temperature of the light produced by the illumination system to any desired value.

In view of the foregoing remarks, applicants submit that claim 1 is not anticipated by the Reithmeier device, and is in fact patentable thereover.

Dependent claim 2 recites that the light-emitting diodes produce a light emission wavelength for selectively increasing the color temperature of the light emitted by the light source. As discussed above, Reithmeier does not disclose the concept of selectively setting the color temperature of the light emitted by the light source, much less selectively increasing same. The purpose of the Reithmeier light-emitting diodes is not to increase the color temperature of the light from the fluorescent lamps, but only to compensate the aforesaid dark strips between adjacent abutting florescent lamps. The invention of claim 2 is not taught by the Reithmeier patent.

As to dependent claim 6, the Patent and Trademark Office relies upon column 3, lines 12-15 of Reithmeier in order to provide factual support for the "102" rejection of this claim. But the cited material discusses electronic control of the luminance of the fluorescent lamps and the LEDs. Luminance relates to the intensity of the light produced, whereas claim 6, dependant on claim 1, relates to electronic control of the LEDs to control the color temperature of light from a light source, not for control of the

intensity of such light, as in Reithmeier. Claim 6 is not anticipated by the Reithmeier.

Claim 7 was amended above so that it now further recites a liquid crystal display device optically coupled to the illumination system of claim 1. This novel feature is not apparent in the Reithmeier patent, wherefore claim 7 is not anticipated by this reference.

Claims 3 and 4 were rejected under 35 USC 103(a) as being unpatentable over Reithmeier in view of Turnbull et al (USP 5,803,579).

The material in the Turnbull patent cited by the Patent and Trademark Office in support of its "103" rejection of claims 3 and 4 has nothing at all to do with the problem solved by the present invention. Furthermore, since there is no indication or suggestion in the Reithmeier patent that any problem exists therein related to the color temperature of the fluorescent lamps, there is no reason or motivation to employ any blue LEDs of Turnbull in the device of Reithmeier. The Patent and Trademark Office attempt to combine the teachings of Turnbull et al with that of Reithmeier is based upon an impermissible hindsight reconstruction of such prior art (and based upon the present disclosure herein).

In addition, the Turnbull et al patent does not cure the aforesaid deficiencies in the Reithmeier patent discussed above in

relation to the "102" rejection of claim 1, and so any combination of these two references, even if obvious, which it is not, still will not produce the device as claimed in claims 3 and 4 of this application.

Claims 3 and 4 are unobvious over the applied prior art and are therefore patentable thereover.

Claim 5 was rejected under 35 USC 103(a) as being unpatentable over Reithmeier in view of Mass et al (USP 6,539,656).

In Reithmeier, the LEDs are positioned along the joints of abutting fluorescent lamps in order to compensate for the dark joints occurring thereat. This reference does not suggest that any useful purpose would be served by using more expensive LEDs such as those described in the Mass et al patent for the particular LEDs of the Reithmeier device. As the Mass et al patent does not cure the above described deficiencies in the Reithmeier patent, any combination of these two references, even if obvious (not yet proven), would still not result in the illumination system claimed in claim 5.

Claim 5 is unobvious and therefore is patentable over the applied prior art in the Office Action.

Claims 8-18 are patentable for the general reasons advanced above as well as other novel features recited therein. For example, in claim 8 the LED sets the color temperature of the light

emitted by the light source independently of the physical structure of the light source. In Reithmeier, not only do the light-emitting diodes not set the color temperature of the light, but they must be positioned at the joints between the abutting florescent lamps if they are to accomplish their light compensation function.

Therefore, the Reithmeier LEDs are dependant (not independent as claimed) on the physical structure of the light source, that is the florescent lamps thereof.

The LED of claim 9 sets the color temperature of the light to a level above that of the discharge lamp alone. This feature is not taught in Reithmeier or the other applied art of record.

The first and second discharge lamps of claim 10 are physically separated from one another, whereas the Reithmeier fluorescent lamps abut one another. The blue light LED of claim 11 is not taught in Reithmeier, nor is it needed therein.

The control electronics as claimed in claim 12 is unobvious over that of Reithmeier. The physical placement of the discharge lamps and LEDs of claim 13 are very different from that of the Reithmeier apparatus.

The relationships set out in claim 14 are novel and unobvious over the applied prior art in this application. The metal core printed circuit board of claim 15 provides new and useful advantages and is not disclosed in the Reithmeier patent.

The novel subject matter of claim 16 is clearly not present in the Reithmeier patent. The details of the illumination system described in claim 17 are not disclosed in the applied prior art in this application.

Claim 18 is limited to one single discharge lamp, whereas Reithmeier requires at least two discharge lamps, otherwise the problem he solves does not exist.

If the Patent and Trademark Office persists in its rejection of the above claims, then the next Office Action should specifically cite, by column and lines, those portions of any applied reference that allegedly disclose the aforesaid novel features.

In view of the incomplete nature of the Office Action, the next Office Action in this application should not be made final.

Please charge the cost of any additional fees in connection with the above amendment to Deposit Account No. 14-1270.

Reexamination and allowance of the application are
respectfully requested.

Respectfully submitted,

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By Bernard Franzblau